

Computers, Environment A N D Urban Systems

**AN
INTERNATIONAL
JOURNAL**

**LIST OF CONTENTS
AND
AUTHOR INDEX
VOLUME 18, 1994**



PERGAMON

Computers, Environment and Urban Systems

An International Journal

EDITOR

David C. Prosperi
Department of Urban and
Regional Planning
Florida Atlantic University
Fort Lauderdale, FL 33301

ASSOCIATE EDITORS

Kate Beard
Department of Surveying
Engineering
University of Maine
Orono, ME 04469

Richard E. Klosterman
Department of Geography
and Planning
University of Akron
Akron, OH 44325

Richard Langendorf
School of Architecture
University of Miami
Coral Gables, FL 33124

Ian Masser
Department of Town
and Regional Planning
University of Sheffield
Sheffield, UK S10 2TN

Vincent B. Robinson
Institute for Land Information
Management
University of Toronto
Erindale College
Mississauga, Ontario
Canada L5L 1C6

Grant I. Thrall
Department of Geography
University of Florida
Gainesville, FL 32611

Marcia Lynn Whicker
Department of Public
Administration
Graduate School
Rutgers University
701 Hill Hall
Newark, NJ 07102

Anthony Yeh
Centre of Urban Planning
and Environmental
Management
University of Hong Kong
Pokfulam Road
Hong Kong

EDITORIAL ADVISORY BOARD

Robert T. Aangeenbrug
University of South Florida

David Arbeit
Department of Planning and
Growth Management
City of Austin

Larry E. Band
University of Toronto

Michael Batty
State University of New York
at Buffalo

Earl J. Bell
University of Washington

Richard K. Brail
Rutgers University

Peter Burrough
University of Utrecht

Barbara P. Battenfield
State University of New York
at Buffalo

Mike De Mers
New Mexico State University

Steve French
Georgia Institute of Technology

Margot W. Garcia
Virginia Commonwealth
University

Kingsley E. Haynes
George Mason University
Fairfax, VA

Lewis D. Hopkins
University of Illinois

Allen P. Marks
The American University
Washington, DC

Theodore K. Miller
Indiana University

Hideo Nakamura
University of Tokyo

Maury Seldin
Homer Hoyt Advanced Studies
Institute
North Palm Beach, FL

John M. Stevens
The Pennsylvania State
University

Barry D. Solomon
U.S. Environmental Protection
Agency

Michael Wegener
University of Dortmund

Barry Wellar
University of Ottawa

Lyna L. Wiggins
Massachusetts Institute of
Technology

Production Editor: Bruce Cooper, E-mail Address: B.COOPER@ELSEVIER.COM

Editorial Office: David C. Prosperi, Department of Urban and Regional Planning, Florida Atlantic University, University Tower, 220 S.E., 2nd Ave., Fort Lauderdale, FL 33301, USA.

Publishing, Subscription, and Advertising Offices: Elsevier Science Inc., 660 White Plains Road, Tarrytown, NY 10591-5153, USA, E-mail Address: ESUK.USA@ELSEVIER.COM; and Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, England.

Published Bimonthly. *Annual Institutional Subscription Rates* 1995: North, Central and South America, US\$552.00, Rest of World £370.00. Associated Personal Subscription Rates are available on request for those whose institutions are library subscribers. Sterling prices exclude VAT. Non-VAT registered customers in the European Community will be charged the appropriate VAT in addition to the price listed. Prices include postage and insurance and are subject to change without notice.

COMPUTERS, ENVIRONMENT AND URBAN SYSTEMS
VOLUME 18, LIST OF CONTENTS

Volume 18, Number 1

January/February, 1994

CONTENTS

Christopher J. Webster	1	Structured methods for GIS design Part 1: A relational system for physical plan monitoring
Christopher J. Webster Christopher N. Omare	19	Structured methods for GIS design Part 2: An object-oriented system for physical plan monitoring
Paul Gottlieb James Reilly	43	A simulation model for state growth management planning and evaluation: The New Jersey case
David Martin Paul Longley Gary Higgs	55	The use of GIS in the analysis of diverse urban databases

Volume 18, Number 2

March/April, 1994

Special Issue
GIS/LIS '94 • CENTRAL EUROPE

CONTENTS

Barry Wellar Nairne Cameron Michael Sawada	67	Progress in building linkages between GIS and methods and techniques of scientific inquiry
Ákos Detreköi	81	Data quality management in GIS systems
K. Kraus H. Kager	87	Accuracy of derived data in a geographic information system
Karen A. Mulcahy Keith C. Clarke	95	Government digital cartographic data policy and environmental research needs
Viveca Asproth Anita Håkansson Péter Révay	103	GIS application for visualization of streams

///

Ferenc Sárközy	111	The GIS concept and 3-dimensional modeling
Grenville Barnes D. David Moyer Gezim Gjata	123	Evaluating the effectiveness of alternative approaches to the surveying and mapping of cadastral parcels in Albania
David Stanfield Maksi Raço	133	Land markets, information, and a property registration system in Albania
Davorin Kereković	143	Project "Proof of the Identity of Reconstruction Project of the City of Vukovar"
Gilles Albarèdes	147	GIS and beyond

Volume 18, Number 3

May/June, 1994

CONTENTS

C. Victor Wu Barbara P. Buttenfield	153	Spatial data quality and its evaluation
Qing Shen	167	An application of GIS to the measurement of spatial autocorrelation
David M. Theobald Mark D. Gross	193	EML: A modeling environment for exploring landscape dynamics
Kamal T. Azar Joseph Ferreira, Jr. Lyna Wiggins	205	Using GIS tools to improve transit ridership on routes serving large employment centers: The Boston South End Medical Area Case Study

Volume 18, Number 4

July/August, 1994

Special Issue
16th URBAN DATA MANAGEMENT SYMPOSIUM

CONTENTS

Conference Papers

Manfred M. Fischer	233	From conventional to knowledge-based geographic information systems
---------------------------	-----	---

Robert Laurini	243	Multi-source updating and fusion of geographic databases
Michael J. Kevany	257	Use of GPS in GIS data collection
Jean-Christophe Hadorn Bernard Saugy	265	Analysis of urban pollution and forest fire surveillance
Dave Sharman	279	ROMANSE in Southampton

Volume 18, Number 5

September/October, 1994

CONTENTS

Zorica D. Budić David R. Godschalk	285	Implementation and management effectiveness in adoption of GIS technology in local governments
Anne Shepherd Leonard Ortolano	305	Critiquing expert systems for planning and management
Prasuna D. V. G. Reddy	315	Land information systems (Electronic Pages) as a part of IVHS
Les Worrall	323	The role of GIS-based spatial analysis in strategic management in local government
Michel Mainguenaud	333	Consistency of spatial database query results
Hsiu-Hua Liao Udoyara S. Tim	343	Interactive water quality modeling within a GIS environment
Robert Hickey Alan Smith Piotr Jankowski	365	Slope length calculations from a DEM within ARC/INFO GRID

Volume 18, Number 6

November/December, 1994

CONTENTS

Massimo Craglia**Geographical Information Systems in
Italian Municipalities**

381	Preface
-----	---------

Chapters

383	1: Introduction
387	2: Research framework
405	3: The Italian context
423	4: Research hypotheses and strategy
433	5: Implementation and use of GIS in the Municipality of Padua
445	6: Implementation and use of GIS in the Municipality of Modena
457	7: Comparison, evaluation, and conclusions

I	List of Contents and Author Index Volume 18, 1994
---	--

COMPUTERS, ENVIRONMENT AND URBAN SYSTEMS

AUTHOR INDEX, VOLUME 18

- Albarédes, G., 147
Asproth, V., 103
Azar, K. T., 205
- Barnes, G., 123
Budić, Z. D., 285
Buttenfield, B. P., 153
- Cameron, N., 67
Clarke, K. C., 95
Craglia, M., 381
- Detreköi, Á., 81
- Ferreira, J., Jr., 205
Fischer, M. M., 233
- Gjata, G., 123
Godschalk, D. R., 285
Gottlieb, P., 43
Gross, M. D., 193
- Hadorn, J.-C., 265
Håkansson, A., 103
Hickey, R., 365
Higgs, G., 55
- Jankowski, P., 365
- Kager, H., 87
Kereković, D., 143
Kevany, M. J., 257
Kraus, K., 87
- Laurini, R., 243
Liao, H.-H., 343
Longley, P., 55
- Mainguenaud, M., 333
Martin, D., 55
Moyer, D. D., 123
Mulcahy, K. A., 95
- Omare, C. N., 19
Ortolano, L., 305
- Raço, M., 133
Reddy, P. D. V. G., 315
Reilly, J., 43
Révay, P., 103
- Sárközy, F., 111
Saugy, B., 265
Sawada, M., 67
Sharman, D., 279
Shen, Q., 167
Shepherd, A., 305
Smith, A., 365
Stanfield, D., 133
- Theobald, D. M., 193
Tim, U. S., 343
- Webster, C. J., 1, 19
Wellar, B., 67
Wiggins, L., 205
Worrall, L., 323
Wu, C. V., 153

